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EDITORIAL COMMENTS

The DETECT I trial is an impressive pragmatic, multicenter, prospective observational trial that seeks to inform current practice regarding the optimal workup of hematuria, which is a common and expensive occurrence. This study adds important evidence to the growing body of literature questioning the usefulness of CTU in the workup of microscopic hematuria as recommended by AUA guidelines (reference 3 in article). Notably guidelines define microscopic hematuria as more than 3 red blood cells per high power field compared to a positive dipstick in DETECT. The possibility of false-positive results makes this cohort at lower risk than cohorts in which microscopic hematuria is confirmed. However, the incidence of UTUC in this study is in line with that of other work. Of the 475 cases in which CTU as well as ultrasound was done there was no case of UTUC. A retrospective review of the records of more than 2,600 patients with asymptomatic microscopic hematuria similarly showed no patient with UTUC.[1]

CTU exposes patients to additional costs, radiation and contrast administration. The incremental cost to detect 1 case of bladder cancer, kidney cancer or UTUC by CT and cystoscopy has been estimated at $6.5 million compared to about $54,000 for ultrasound and cystoscopy (reference 20 in article). In appropriate patients ultrasound can significantly decrease the risks and costs of microscopic hematuria evaluation with a minimal impact on sensitivity.

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1. Loo RK, Lieberman SF, Slezak JM et al: Stratifying risk of urinary tract malignant tumors in patients with asymptomatic microscopic hematuria. Mayo Clin Proc 2013; **88:** 129.

This study by Tan et al is a post hoc analysis of 3,556 patients enrolled in the DETECT I prospective multicenter observational study.[1] Their goal was to determine whether RBUS could replace CTU for the investigation of patients with microscopic hematuria. The authors found that RBUS can safely replace CTU in patients with microscopic hematuria but CTU should be done to investigate gross hematuria.

The authors present a timely analysis which adds to the current evidence base for the evaluation of hematuria. Many urological associations and medical groups already recommend RBUS for the initial evaluation of microscopic hematuria but the level and grade of evidence of these recommendations is low (reference 2 in article). This analysis from DETECT I will increase that level of evidence and not only reassure surgeons who currently practice that recommendation but it should also challenge us to revise and unify guidelines for the evaluation of these patients.

As the authors point out, in an ideal world every patient would be investigated with the best test. However, in the case of microscopic hematuria, for which the incidence of UTUC is low and there is a financial and health cost to CTU, these results justify